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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,133	12/23/2005	David B. Duperray	US0 30186 US2	5554

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
PO BOX 3001  
BRIARCLIFF MANOR, NY 10510-8001

EXAMINER
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HAROON, ADEEL

ART UNIT	PAPER NUMBER
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2618

MAIL DATE	DELIVERY MODE
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07/24/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/562,133	DUPERRAY, DAVID B.	
	<b>Examiner</b>	<b>Art Unit</b>	
	ADEEL HAROON	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "small number of transmit tones" in claims 1 and 7 is a relative term which renders the claim indefinite. The term "small number" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

Art Unit: 2618

351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Liu (U.S. 2006/0240786).

With respect to claim 1, Liu discloses a communication method that uses an amplifier, element 116, to perform amplification of "a small number of transmit tones," which produces unwanted intermodulation distortion products (Paragraph 19). Liu also discloses obtaining an intermodulation distortion product measurement and determining its affect on the communication system such as the amplifier linearity (Paragraphs 14 and 45).

With respect to claim 2, Liu discloses adjusting the amplifier linearity to fall within the acceptable range (Paragraph 45).

With respect to claim 3, Liu discloses adjusting the amplifier control signal in response to determining the acceptable error vector magnitude and desired third-order intercept point value (Paragraph 60).

With respect to claim 4, Liu discloses a leakage path (Paragraph 111).

With respect to claim 5, Liu discloses converting the signals from the time domain to the frequency domain (Paragraph 72).

With respect to claim 6, Liu teaches transmitting the transmit tones, which must be converted from the frequency domain to the time domain thus using an IFFT operation (Paragraph 14).

With respect to claim 7, Liu discloses a communication apparatus with an amplifier, element 116, to perform amplification of "a small number of transmit tones," which produces unwanted intermodulation distortion products (Paragraph 19). Liu also discloses obtaining an intermodulation distortion product measurement and determining its affect on the communication system such as the amplifier linearity (Paragraphs 14 and 45).

With respect to claim 8, Liu discloses adjusting the amplifier linearity to fall within the acceptable range (Paragraph 45).

With respect to claim 9, Liu discloses adjusting the amplifier control signal in response to determining the acceptable error vector magnitude and desired third-order intercept point value (Paragraph 60).

With respect to claim 10, Liu discloses a leakage path (Paragraph 111).

With respect to claim 11, Liu discloses converting the signals from the time domain to the frequency domain (Paragraph 72).

With respect to claim 12, Liu teaches transmitting the transmit tones, which must be converted from the frequency domain to the time domain thus using an IFFT operation (Paragraph 14).

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haub et al. (U.S. 2004/0152429) discloses a method/apparatus to reduce intermodulation distortion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ADEEL HAROON whose telephone number is (571)272-7405. The examiner can normally be reached on Monday thru Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/562,133  
Art Unit: 2618

Page 6

/A. H./  
Examiner, Art Unit 2618

/Edward Urban/  
Supervisory Patent Examiner, Art Unit 2618